W5YI

America's Oldest Ham Radio Newsletter

REPORT

Up to the minute news from the world of amateur radio, personal computing and emerging electronics. While no guarantee is made, information is from sources we believe to be reliable.

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FCC Adopts Software-Defined-Radio Rules

The SDR is viewed as a critical technology to satisfy requirements for interoperability among the various services and with foreign allies, as well as a means to achieve information superiority, operational flexibility, and cost benefits. SDR has tremendous potential in the near-term to accommodate multiple bands/standards in the United States and internationally to integrate third generation (3G) wireless applications. SDR technology has the potential to unite a world of diverse standards and technologies, and frequency bands. Federal law enforcement agencies have also considered SDR as a possible solution to satisfy interoperability communication and multiband radio requirements. NTIA recommends that the Commission work with industry representatives to ensure that SDRs comply with the table of frequency allocations, including having the ability to lockout or prevent access to certain frequency ranges, waveforms, and combinations thereof. *(NPRM comments: NTIA)*

At its open meeting September 13th, the FCC adopted rule changes to authorize and deploy a new generation of radio equipment known as software defined radios (SDRs). The SDR *First Report and Order* removes barriers to entry of SDR-enabled products into the marketplace. The new rules will allow manufacturers and operators to reconfigure devices after they have been deployed in the field and will speed the introduction of advanced technology and new services.

The new rules say software modifications in a SDR can be made through a "permissive change," which has a streamlined filing process; the FCC ID number will not have to be changed, and equipment won't have to be re-labeled. The FCC also will permit an optional "electronic label" for SDRs, in which the FCC ID number could be displayed on a LCD or similar screen. It will allow another party to obtain an equipment approval in its name, becoming responsible for compliance instead of the original grantee. The commission also adopted requirements saying a grantee must take "adequate steps" to prevent unauthorized software modifications to

radios, but it declined to set specific security requirements.

What are Software-Defined-Radios (SDR)?

In a sentence, they are radios that can change their frequency, bandwidth, and modulation scheme through software programming. SDR provides an efficient and comparatively inexpensive mechanism for the design and implementation of multi-band, multi-mode, multi-function radios that are able to adapt to all existing and future communication systems without the need to purchase new hardware.

The term software-defined-radios (SDRs) is used to describe radio transceivers that provide software control of a variety of modulation techniques, wide-band or narrow-band operation, communications security functions (such as hopping), and waveform requirements of current and evolving standards over a broad frequency range. Nearly every radio frequency (RF) attribute of an SDR subject to regulation is potentially controllable via software.

The frequency bands covered may still be

constrained at the front-end requiring a switch in the antenna system. Digital signal processing (DSP) techniques are key to the implementation of SDR. However, all RF communications eventually requires an analog interface with the antenna for transmission and reception. This requires all SDRs to contain some analog components that clearly are not software defined but may be software controlled

SDR is an enabling technology applicable across a wide range of areas that provides efficient and comparatively inexpensive solutions to several constraints posed in current radio systems. For example, SDR-enabled user devices can be dynamically programmed in software to reconfigure their characteristics for better performance and to add new features as they emerge.

Early SDR implementations have shown that the multifunction flexibility afforded by a software implementation usually comes at the price of added size, weight, and power, relative to a single function radio implemented in hardware. When an SDR can replace several hardware-based single-function radios, these disadvantages may be acceptable.

Software defined radios can be quickly reprogrammed to transmit and receive on multiple frequencies in different transmission formats. This reprogramming capability could change the way users traditionally communicate across wireless services and promote more efficient use of radio spectrum.

SDR technology can allow one radio to interface with multiple telecommunications services. The interfaces could be radio-initiated (i.e., adaptive) or user-initiated. SDRs will likely be integrated into other products such as laptop computers, personnel digital assistants, and automobiles to provide reconfigurable information links. SDR flexibility could also provide services better tailored for each user's needs or interests.

At this time, police and Federal law enforcement vehicles often have multiple mobile radios, while multiple portable radios are somewhat common in the fire services. This allows interoperability across bands or system protocols, but causes vehicle space problems or burdens public safety officials with additional weight and cost.

The current frequency allocations for public safety land mobile channels are scattered over five disparate segments of the frequency spectrum between 25 MHz and 1 GHz. There are public safety frequency allocations in 30-50 MHz (VHF Low Band), 162-174 MHz (VHF High Band), 406-420 & 450-512 MHz (UHF), 764-776 & 794-806 MHz (700 MHz), and 806-940 MHz (800 MHz).

As a result, radios in one band cannot currently interoperate with radios in another band. Multiple agencies converging on a single incident with communications systems that do not share the same frequency, face a much greater communications challenge than those who share common frequencies or even a common frequency band. SDRs capable of operating in multiple frequency bands are considered a solution to the public safety interoperability problem.

Background of SDR rulemaking

The road to software-defined radios began on March 17, 2000 when the FCC asked for public comment on a new generation of radio equipment under development that can be quickly reprogrammed to transmit and receive on any frequency within a wide range using virtually any transmission format. It said:

"In a software-defined-radio, functions that were formerly carried out solely in hardware, such as the generation of the transmitted signal and the tuning and detection of the received radio signal, are performed by software that controls high-speed signal processors. Because of the ability to be easily reprogrammed, a software-defined-radio could be programmed easily to operate over a broad range of frequencies, bandwidths and transmission standards."

In December 2000, the Commission released a *Notice of Proposed Rule Making (NPRM)* seeking comments on proposed changes to streamline the equipment authorization rules for software-defined-radios. Under the previous rules, if a manufacturer wanted to make changes to the frequency, power or type of modulation for an approved transmitter, a new approval was required, and the equipment had to be re-labeled with a new identification number. Because software-defined-radios have the capability of being reprogrammed in the field, these requirements could be overly burdensome and hinder the deployment of software-defined-radios to consumers.

Under the new rules released September 13, 2001, software modifications in a software defined radio can be made through a 'permissive change," which has a streamlined filing process. The FCC identification number will not have to be changed, so equipment in the field will not have to be re-labeled. These permissive changes can be obtained only by the original grantee of the equipment authorization.

To allow for changes to equipment by other parties such as software developers, the Commission will permit an optional "electronic label" for software defined radios, in which the FCC identification number could be displayed on an LCD or similar screen. It will allow another party to obtain an equipment approval in its name and become the party responsible for compliance instead of the original grantee.

The Commission also adopted the proposal in NPRM to require that a grantee must take adequate steps to prevent unauthorized software modifications to radios, but it declined to set specific security requirements at this time. This will allow manufacturers flexibility to develop

innovative equipment while at the same time provide for oversight of the adequacy of such steps through the equipment authorization process.

The SDR Forum particularly welcomed the new rules. The SDR Forum is an international industry association dedicated to supporting the development and deployment of software defined radio systems that enable flexible and adaptable architectures in advanced wireless systems.

The membership of the SDR Forum numbers more than 125 commercial, defense, and civil government organizations, and includes wireless service providers, network operators, component and equipment manufacturers, hardware and software developers, regulatory agencies, and academia.

The cellular phone industry said using SDR technology, a consumer traveling to a foreign country with an incompatible cellular network could connect to the Internet and download the needed software. SDR technology also permits radio manufacturers to make generic "open architecture" radio transceivers at lower costs which can be concluded, enhanced or customized with software at the point of sale depending upon the needs or preferences of the customer.

Software upgrading also permits operators to update their equipment without having to purchase a completely new radio. For example, a customer could purchase a Smart Card containing the new application software from the manufacturer and insert it into his radio.

The *Order* was adopted Sept. 13, 2001 by *First Report and Order* with Chairman Powell, Commissioners Abernathy, Copps and Martin concurring.)

MORE INFORMATION ON FCC REGISTRATION NUMBERS

Good news for VE teams. In our last newsletter we mentioned that it would be necessary for applicants to supply their FRN (FCC Registration Number) on their NCVEC 605 application forms when collection of the FRN becomes mandatory December 3, 2001.

We also said that the FCC automatically issued nearly every Amateur an FRN who was issued a call sign prior to May 19, 2001 but not afterward.

The FCC has now informed us that "All TINs and call signs registered in ULS prior to December 3, 2001 will automatically receive an FRN. The process of auto-registering TIN's and providing FRN's will continue when CORES and ULS are fully integrated."

What that means is that applicants for Amateur Radio licenses need not supply a FRN if they do not know what it is -- or are applying for a new license. It can be obtained by their VEC by accessing the applicant's FCC record - or it will be automatically generated by the FCC if a new applicant.

VECs will be able to file FRN's in their EBF (Electronic Batch Files) effective November 13, 2001.

While most amateurs will have an FRN, some will not -- especially those who have not had any action (such as an upgrade, name, address or call sign change in many years) on their FCC Amateur Radio record. It is important that all amateurs check to be certain that they have an FRN posted to their record.

How to find your FRN:

(1.) Go to this website: <http://www.fcc.gov/wtb/uls/>
(2.) Click on the <LICENSES> link (located under the word SEARCH.)
(3.) On the next <License Search> page, Click on the word <Continue>
(4.) Enter your Amateur Radio call sign in the box <Call Sign>
(5.) Scroll to the bottom of the page and click on the <Search> button
(6.) Click on your highlighted call sign (on the next page) to get to your FCC record
(7.) At the top of the screen you will see two links - each entitled <License Information>
(8.) Click on the second (from the left) <License Information> link
(9.) Your 10-digit FRN is displayed on the top line.

If the FRN number is blank, then you should register by clicking ULS TIN Registration from the ULS homepage located at <http://www.fcc.gov/wtb/uls>.

The FCC also said they would be holding a Public Forum on CORES implementation on October 24, 2001 in the Commission Meeting Room (FCC headquarters in Washington, DC) from 10 a.m. to 12 noon.

RSGB SAYS NEW "FOUNDATION LICENSE" IMMINENT

No Code International (NCI) Board Member Peter Halpin, PE1MHO from The Netherlands has been appointed to the Radio Society of Great Britain's (RSGB) Amateur Radio Development Committee. Pete was born in London in 1950.

NCI is a large international organization or radio amateurs from 50 countries who are interested in ending the Morse code exam requirement and promoting new technology. The organization was founded several years ago by Bruce Perens K6BP of Berkeley, California On the web see <www.nocode.org>.

He said "Although there were outspoken opponents of code-testing before NCI, no organization represented us. I felt that no-coders needed to 'go public' if we were ever to have a chance of getting changes in Amateur licensing rules. As an Extra who had passed the 20 WPM, I made a good initial spokesperson for the organization, because a change in the rules would not get me any more

privileges." Bruce considers Morse code "an antiquated technology" and "a turnoff for young people."

Bruce was first licensed in the early 70's as WA2TNM. Your author, Fred Maia W5YI, (licensed since the 1950's) served as the second NCI Executive director. The organization's current leader is Carl Stevenson WA6VSE, an RF (IEEE) engineer with Lucent Technologies.

Peter Halpin said his first contact with the use of radio was in Nigeria in the late 1950s, where the BBC World Service was the only source of information. In 1963 while living in Ireland he heard a neighbor using 160m AM on his SWL received and he was hooked. He also holds the G7ECN callsign in the United Kingdom . His main interests are home construction, new radio technologies and is an avid 6 meter QRP DXer. He holds a slew of awards including ARRL 6M DXCC #247 (mixed-mode) and IARU 50MHz QRP WAC (Phone endorsement.) He is a member of the RSGB ...and VRZA and VERON, the two national ham societies in The Netherlands.

The RSGB's Amateur Radio Development Committee (ARDC) has three main duties:

(1)   To develop the structure of amateur radio licensing in the UK;

(2)   To promote amateur radio in the wider community;

(3)   And to find sponsors for amateur radio activities.

Some factors which have led the RSGB to consider it desirable to set up the ARDC are:

(a)   The numbers of new entrants into amateur radio is declining fast.

(b)   Morse code for HF access will probably be abolished as an international requirement at WRC 2003.

(c)   The RA (Radiocommunications Agency, the UK telecom regulator) and RSGB will soon announce a "Foundation" license, with 10 watts on all bands.

(d)   The Foundation, Novice and Full licences will need to be revised and integrated.

(e)   A new set of examinations should be created, dovetailed together, before 2003.

(f)   City & Guilds will no longer offer examinations for radio amateurs, and the Society will consider providing this function.

(g)   The Society needs an effective way of running the GB4FUN "battle bus." (See below.)

(h)   Opportunities to obtain commercial sponsorship are thought to be possible even in the hardening economic climate.

(i)   The Society needs to improve dramatically its links with people and organizations that can help, such as schools, colleges, other technical societies, members of parliament, government bodies, and so on.

RSGB'S "FOUNDATION LICENSE" TO BE ANNOUNCED

The UK's Leicester Amateur Radio Show and Convention is being held September 21 and 22, 2001 in Leicestershire, England. On the Friday agenda is a joint presentation by the RSGB and the UK's Radiocommunications Agency (the RA is the UK telecom regulator) at which the new structure for amateur radio licensing in the United Kingdom will be announced.

The RSGB and RA has been working on restructuring their Amateur Service which the RA says is in "...serious decline." To combat the decrease, the RSGB and RA have embarked on what they call the "Stelar Program." STELAR is an acronym for "Science and Technology through Educational Links with Amateur Radio."

The group was formed several years ago to coordinate and promote amateur radio in schools and to give teachers knowledge of and training in the hobby. They run free courses for instructors which is also open to any school which has no amateur radio licensed teacher.

STELAR also publishes AMRED (Amateur Radio in Education) magazine three times a year to affiliated individuals and institutions and operates a weekly (Wednesday at 1:00 p.m.) radio net during the school year on 3.770 MHz. One of STELAR's main objectives is to increase the number of schools which have clubs training students for ham tickets.

The program is being supplemented by the RSGB who have a program of visits to schools around the UK to promote interest in the hobby. To further this project, UK's Radiocommunications Agency has provided the RSGB with a gift of one of their monitoring vehicles in which ham radio equipment has been installed to demonstrate ham radio to schoolchildren.

The RSGB's GB4FUN "Battle Bus" (as it is being called) is a new mobile radio ham shack that has been outfitted by Waters & Stanton PLC, a leading UK radio equipment supplier with outlets in England and Scotland. (Website: <http://www.wsplc.com/>.)

The van has benches installed inside, 13 amp sockets and a totally silent 4kW diesel generator. The vehicle can run full legal power on all HF bands, plus 100W on 2m and 50W on 70cm. All equipment is bolted down so that there is no movement while in transit. A telescopic mast has been installed on the rear of the vehicle and all antennas are carried on the vehicle. The station can be on-the-air within 15 minutes of parking. Waters & Stanton has agreed to maintain the equipment and update the station as needed. The objective of the GB4FUN van is to target schoolchildren in the 9 –11 year old bracket.

The new UK licensing structure which de-emphasizes Morse code is being called "pretty dramatic" and involves a new "Foundation" (beginning) license. Since this is being written prior to the Leicester hamfest, all we

know for sure about the "Foundation" license is what has been leaked at various ham gatherings by the RSGB and RA.

There has been talk about two UK Amateur Radio structures; three levels (Foundation, Intermediate – or Advanced – and the Full License) and two tiers: (Foundation and Full only.) All new amateurs will enter at Foundation Level and progress up, but all exams can be taken on the same day.

At present, the UK ham exam program is administered by the City and Guilds Institute but plans are for the RSGB and clubs to assume the training and testing function. Thought is being given to using "new examination technology" (otherwise known as computers) with each candidate being administered a unique examination. Also being considered is "e-licensing" (or electronic licensing.)

The beginning Foundation license was originally to be a 25W VHF/UHF only class. But we now understand that the new class could be an all-band domestic license with the power level set at 10W to minimize interference. This is basically the same as Japan's beginning license which authorizes codeless HF. Antenna restrictions are being proposed to insure domestic operation just as it does in Japan. (It doesn't, but looks good on paper.)

Foundation Class gear was supposed to be commercially-made equipment only, but the RSGB wants the license to NOT require type-approved transceivers and the RA is trying to find a way to go along with this request. Reportedly, commercially-available "home built QRP kits" which do not require test equipment or extensive electronic construction practices will be allowed.

Theoretically the Foundation license will be able to be achieved with just one day ("8-10 hours of tuition") or a weekend of study based around supervised on-the-air training and practical "hands on" instruction on operating procedures, essential regulations, interference knowledge, simple construction and basic radio theory. At the end of the course, a simple multiple choice examination is conducted by the instructor and a license is issued.

The concept is basically one of "apprenticeship" overseen by amateurs and/or teachers utilizing a course textbook. The focus will be on knowing "what to do" and "what not to do" on the air. The RA is also considering relaxing the rules on supervised operation where there is no licensed schoolteacher.

The Foundation license is designed to compete with Internet chat that has no exams, no restrictions at basically "zero cost." The big surprise is that the RSGB and RA is trying to find a way to permit HF (voice) operation without learning the code. The International Radio Regulations do not specify the speed of the tests, but rather require "a knowledge of Morse."

Toward that end, consideration is being given to just testing "some" knowledge of the Morse code alphabet.

This is to comply with current international amateur HF access regulations until after WRC-2003 when it is assumed that the Morse testing requirement will be removed. The RA said it has no plans to set aside some parts of HF for exclusive Morse operation.

We plan to cover all of the details of the UK's new Foundation and license structure in our next issue since we do not believe it will be available before presstime.

GMDSS OPERATOR EXAMS GOES TO 124 QUESTIONS

The Global Maritime Distress and Safety System (GMDSS) is a maritime communications system that basically replaces radiotelegraphy at sea. The GMDSS Operator license is required by international law for people operating the new satellite-based and digital selective calling communications equipment aboard maritime vessels.

The license is obtained by passing commercial written Element 1 (a 24 question exam) and written Element 7 (76 questions) for a total of 100 multiple choice questions. The Element 1 examination covers basic radio law and Element 7: GMDSS radio operating practices.

On July 25, 2001, the FCC approved a new question pool for Element 7, consisting of 600 multiple-choice questions on 100 topics with each topic having six questions. The FCC expected that a random selection of one question from each key topic would result in a well-balanced 100-question examination.

COLEM (Commercial Operator Examination Managers) were permitted to begin using the new question pool immediately, or could continue to use the old questions for a period of six months following the release date.

On August 15, 2001, National Radio Examiners (NRE), the commercial radio subsidiary of the W5YI Group requested a waiver of the rules to allow the 100-question Element 7 to be implemented since Section 13.203(a)(5) of the rules specifically calls for a 76 question Element 7 exam (with a minimum passing score of 57 questions answered correctly.)

On September 14, 2001, the FCC released a Public Notice requesting comments on the waiver. (Comments close on Sept. 30, replies: Oct. 10th.) Once the waiver is approved, there will be a total of 124 exam questions to obtain a GMDSS Operator license; 24 on Element 1 and 100 on Element 7. (To pass, you must score 18 correct on Element 1, 75 on Element 7.)

All commercial radio operator question pools (including the new 600 question Element 7) can be downloaded from the FCC's website at: <http://www.fcc.gov/wtb/-commoperators/exam.html>. Once there, click on the "downloading" link.

The FCC Rules for all radio services (including the Part 80 Maritime Service) can be found on the Web at: <http://www.fcc.gov/wtb/rules.html>.

CUTTING EDGE TECHNOLOGY

Imagine being able to smell flowers or fresh baked bread when you go to a florist or bakery website ...or pine trees while watching a movie filmed in a forest? By teaming up with Quest International, one of the world's leading fragrance companies, DigiScents has been able to recreate the sense of smell by digitizing, transmitting, and synthesizing scent.

The "iSmell Personal Scent Synthesizer" (about $150) is a speaker-sized computer peripheral device that attaches to the serial or USB port of your personal computer and plugs into a standard electrical outlet. The iSmell emits naturally-based vapors.

The device works by storing 128 different basic scent elements and mixing them together on cue to reproduce any given smell, much the way an ink jet printer mixes together different amounts of ink to reproduce thousands of shades of colors. And like printer ink, the smell cartridges can be replaced when they run out. There is even a web developers kit for programmers who want to add odors to their software. <www.digiscents.com>

Coming to our shores? Daimler-Chrysler has bought the rights to a MCC (Micro-Compact Car) they co-developed with the Swiss Swatch Company. Swatch is also the inventor of "Internet Time" a universal time that divides the day into 1000 beats.

Powered by a three cylinder engine, the "Mercedes Smart Car" looks like a cross between a 1600-pound golf cart and an 8-foot self-propelled armchair. (Smart is an acronym for Swatch, Mercedes and Art.)

Supposedly the MCC has a top speed of 85 mph at up to 60 miles per gallon! Available now in Europe and Japan, but could be available in the U.S. in a couple of years. (Cost: $7,500- $11,000.)

Car photo: <www.photo.net/photo/-pcd0796/smart-swatch-car-38>. Review: <www.automotive-review.com/smart.-htm>. Also see: <www.so-smart.com>..

EMERGING COMMUNICATIONS

Con artists are concocting online fraud. Be on the lookout for unsolicited e-mail which asks for donations for victims and survivors of the World Trade Center and Pentagon attacks. A typical message claims to be part of an "Express Relief Fund" or "Victims Survivor Fund." Another widespread e-mail solicits donations for the Red Cross, but the link led to a Web site unconnected with the popular, nonprofit relief organization. *(Reported by CNet)*

Weather balloons have been used for over fifty years to collect meteorology data. They soon will be used to "hang" a network of inexpensive wireless repeaters at the stratospheric level to extend wireless service to the 20 percent of the U.S. remote, rural, and outlying suburban areas that are not reached from a cellular or broadcast tower.

The FCC approved Space Data Corp's (Phoenix, AZ) request to enable its balloon-based "SkySites" technology. The ruling removed the final hurdle in the purchase and use of a nationwide spectrum license that Space Data acquired earlier this year.

Their vision is to attach communication electronics to small, expendable weather balloons that will float to 20 miles above the earth's surface, provide communications services for approximately 12 to 24 hours, and then be replenished with a new balloon.

The company is working with the National Weather Service to operate its communications system in cooperation with NWS upper-air operations. Nearly a thousand launch sites around the world have launched weather balloons twice per day for decades.

The firm plans eventually to operate as a carrier for existing wireless carriers to transparently extend their coverage to fringe unserved gaps in their system. See: <www.spacedata.net>

COMPUTER INFO

Over one-fifth of home and office personal computer (PC) users using e-mail have knowingly opened an unknown e-mail attachment out of sheer curiosity, exposing themselves and others to e-mail borne viruses, according to a survey conducted by Central Command, Inc., a leading provider of PC antivirus software and computer security services. The survey, titled "Are You Practicing Safe Computing", was e-mailed to over a 750,000 PC users worldwide.

Ergo Magic has a computer keyboard that is actually three separate pieces wired together ...one for the left hand, one for the right hand and a third for the numbers keypad. Place them around the computer in any configuration you want. See it at <www.keyalt.com>.

The collapse of the World Trade Center on Sept. 11th underscored the importance of businesses backing up critical computer data and storing it in a second location miles away. Firms that store a copy of original files on a second machine in the same location are not protected in the event of a disaster.

For the first time in fifteen years, world-wide personal-computer sales will likely be lower this year than last. Companies are waiting an average of more than four years to buy new PCs, up from three years in the late 1990s, according to International Data Corp. The Framingham, Mass., research firm estimates that PC unit sales this year will contract 10% in the U.S. and remain flat world-wide.

Struggling PC makers hope that Microsoft's new Windows XP operating system (due out October 25th in time for holiday sales) will revitalize their sagging business. The new OS is supposedly resistant to crashes and can be upgraded right over the Internet. It takes up a hefty 1.5 GB of hard disk space. The final XP software was turned over to computer manufacturers in late August. (List: $199.)

INTERNET NEWS

Dot-com demise now stands at 642. That's the number of Internet companies that have gone out of business or declared bankruptcy since January 2000. *(From Webmergers.com, a company that keeps track of such things.)*

What a difference a year makes! American Greetings Corp. of Cleveland, OH (the world's largest publicly held greeting card company with sales of $2.5 billion) has acquired the Blue Mountain Arts online greeting card site for $35 million in cash. BlueMountain.com had been purchased by Excite@Home for $780 million during the height of the dot-com boom -- a 95 percent loss. Blue Mountain once ranked among the Top 10 most-visited Web sites. American Greetings also acquired Egreetings.com and BeatGreets.com earlier this year. Its

combined reach will now exceed 100 million unique visitors annually.

Online travel sites took a severe hit when the FAA halted air traffic and thousands of flights were cancelled. New transactions slowed to a crawl and customer service centers couldn't handle the influx of calls.

Internet gambling keeps expanding. World famous Harrods Department Store of London is the first major retailer to launch an Internet casino. They have entered into an agreement with the British arm of Microsoft to have a fixed link to <www.harrods-casino.com> on the home page of MSN's UK portal.

<www.msn.co.uk> is the largest UK website with an estimated 11 million users per month. Harrods Casino, which takes bets in ten different languages, is not available to people living in the USA, Canada, France or Costa Rica.

But a full blown Harrods Resort and Casino (or a Harrods store) may be coming to Las Vegas. We heard a strong rumor that Harrods owner, Mohammed Al Fayed, may be partnering with famed Las Vegas casino builder Steve Wynn in the remake of the 220-acre Desert Inn property. The main resort and casino (and their may be four before he is done) supposedly will be 52 stories with 2300 all-suite rooms.

Al Fayed is the father of Dodi Al Fayed, who was killed in a 1997 car crash in Paris with Princess Diana.

The younger generation is 100% connected to the Internet. A Harris Poll showed that all of the 2001 crop of college graduating students are online compared to only two-thirds of the general public. On the other hand, only 16% of the Class of 2001 reported being "very concerned" about a terrorist attack compared with nearly half of the population. *(Source: Generation 2001.)*

WASHINGTON WHISPERS

Attorney General John Ashcroft asked anyone with information about the Sept. 11th terrorist attacks to contact the FBI via the <www.ifccfbi.gov> website which is run by the Internet Fraud Complaint Center. (The IFCC is a joint venture of the FBI and the National White Collar Crime Center.) The FBI has also set up a toll-free

"terrorist activity" phone number at: 1-866-483-5137.

The Associated Press is reporting that the FBI is serving search warrants to major Internet service providers in order to get information about an e-mail address believed to be connected to the World Trade Center terrorist attack.

Agents have visited the nation's top Internet access companies asking if a particular e-mail address has flowed through their network at any time. Two ISP's referred to in the story were Atlanta-based Earthlink and America Online. Yahoo! and Microsoft's Internet divisions which run Web-based e-mail services were also mentioned.

Earthlink said that the FBI did not install the Carnivore e-mail surveillance device on their system, instead relying on Earthlink's own reports. In the past, Earthlink has gone to court to resist installing Carnivore which is also known as DCS-1000.

Carnivore is a controversial, superfast "packet analyzer" that covertly searches e-mails for messages from criminal suspects. The system, which can scan millions of e-mails a second, has upset privacy advocates since it can collect more personal information than is legally allowed. The system also troubles some Internet service providers, who object to outside software being plugged into their systems

In many cases, the FBI keeps the secret Carnivore computer system in a locked cage on the provider's premises, with agents making daily visits to retrieve the data captured from the provider's network. As an ISP transmits e-mail, Carnivore copies those messages with the targeted individual's ISP number — the equivalent of a phone number.

The message is then sent through a filter that pinpoints and retains specific information meeting programmed criteria on tape or disk. But Carnivore has the ability to store and archive intercepted e-mail messages in their entirety. The FBI has been using Carnivore for about four years.

On Sept. 13th, the Senate passed a measure targeting the telephones and computers of people suspected of hijacking, bombing or other terrorist acts.

The focus on airline security may change. The FAA is already looking into high tech devices that automatically stop air piracy. Such systems include

terrain warning systems that steer airliners away from skyscrapers and face-recognition devices that look for known terrorists and prevent a plane from being controlled by anyone except the proper pilots. The face recognition software takes 128 facial readings and cannot be fooled by disguises.

The FAA also is implementing new three-dimensional scanners that compare the density of items inside of checked baggage to those of explosives. Airport computer systems will also know who you are and filter infrequent or new passengers for additional inspection.

Airport workers and screeners will face new training and security standards. New checkpoint software will be able to "insert" questionable objects into baggage to monitor screening quality.

AMATEUR RADIO

Effective Sept 15th 2001 (and until the end of September) the Kuwait Amateur Radio Society (KARS), in conjunction with the Kuwait Ministry of Communications, has authorized the use of the callsign 9K2USA. All Radio Amateurs of Kuwait will be using this single callsign on all bands and all modes simultaneously. The call sign was authorized as a small token of the sympathy and support for the people of the United States from the citizens of Kuwait, and as an expression of deep condolence.

The Kuwait Amateur Radio Society (KARS) will be handling the QSLs and they will choose the actual 9K2USA card. KARS will put together a common database, and all QSLs will be via 9K2RA. E-mail address is: <9K2RA@KARS.org> *(From Bob Furzer, K4CY/9K2ZZ)*

German WRC-03 panel votes to end Morse testing. Dr. Ralph P. Schorn, DC5JQ reports that he attended a meeting on September 17th of the German National Preparatory Advisory Group for WRC-03 on behalf of No Code International (NCI). This is an advisory committee to the Federal Minister of Economy. Members are all relevant radio frequency users in Germany including radio/television broadcasting, cellular telephone, aeronautical and maritime organizations, NATO, science, amateur radio, etc.

Ralph said that the CW exam issue had been thoroughly discussed with the

Ministry, the Regulatory Authority, DARC, AGZ and NCI in a non-formal working group during the last few months and that no agreement could be reached.

The DARC (Deutscher Amateur Radio Club) is the German national ham radio society) while AGZ (Arbeitsgemeinschaft Zensurpost e.V), is a smaller amateur radio group. DARC wanted to retain the manual CW exam and was unwilling to agree to any compromise whatsoever. As a result, the complete National Group was called on to decide the issue of retaining Morse exams as a prerequisite to HF amateur radio operation.

After a short (but heated) discussion, the National Group decided that Germany will not support a manual Morse telegraphy exam any longer and the Minster may act accordingly within CEPT(the European telecom agency federation) and WRC-03.

DARC was the only member of the group that favored compulsory CW testing for "an indefinite period of time" which they argued would "...ensure quality levels within amateur radio." No one at the meeting agreed with that position, Ralph said. A German press release is on the AGZ website at: <www.agz-ev.de/>.

(Reported by Ralph, DC5JQ, e-mail: <R.P.Schorn@fz-juelich.de>.)

Gerald W. "Jerry" Hill, KH6HU, of New Haven, Connecticut, has been chosen to head up the ARRL's Amateur Radio Education Project. The objective of the initiative is to provide a turnkey Amateur Radio curriculum, equipment and resources to middle schools. "The Big Project" will improve the quality of education by involving Amateur Radio to teach a variety of subjects – including science, geography, language and speech. In his new position, Hill will work with national educational organizations and ARRL educational advisors to achieve this goal.

CQ Contest, a magazine devoted to the art of amateur radio contesting, will cease publication with its October, 2001 issue. "CQ Contest" has been published 10 times per year since 1996. CQ Communications President and Publisher Dick Ross, K2MGA, said the move was "a purely business decision" and that subscriptions to the specialty magazine would be fulfilled "on a dollar-for-dollar" basis with the company's flagship magazine, ":CQ Amateur Radio."

"CQ Contest" Editor Bob Cox, K3EST, is working on developing an independent online contest publication and if

K3EST is able to launch his web-based contesting magazine, fulfillment of these subscriptions will be transferred to that magazine.

After more than a half century of writing CQ magazine's monthly Propagation column, George Jacobs, W3ASK, will be stepping down as the magazine's Propagation Editor at the end of the year. Tomas Hood, NW7US, takes over the column in January, 2002. Jacobs, who celebrated his 50th anniversary in the position last March, will remain on the CQ staff as a Contributing Editor.

Earlier this year, Jacobs was honored by the Dayton Hamvention as its "Amateur of the Year," in recognition not only of his contributions to amateur radio but to broadcasting as well.

Hood, a resident of Brinnon, Washington, currently runs a comprehensive propagation website on the internet at: <www.hfradio.org/propagation.html>.

FCC Amateur Radio Enforcement

Unlicensed Operation: Four hunters in West Virginia were cited by the FCC for using Amateur radio equipment without a license to communicate with one another during the 1999 and 2000 hunting season.

Warren Chappel (Cordova, AK) was sent an FCC warning notice concerning suspected unlicensed 147 MHz Amateur radio operation on board the "Evak" and "Phoenix" commercial fishing vessels.

Ms. Iona Flores (Norcross, GA) was also notified that the FCC has information "that you or someone at your residence may be operating Amateur radio transmitting equipment on 146.76 MHz without a license."

Continued operation in each case could result in a fine or imprisonment as well as equipment seizure, FCC said. "Fines normally range frm $7,500 to $10,000."

Enrique A. Martinez K7ILS (Terre Haute, IN) has been asked to provide justification for his name change on an application granted July 6, 2001. "If a legal name change was granted, please provide a copy of the documentation," FCC said.

Roger E. Horton K8CIX (Bakersfield, CA) has again been asked to change his address in the FCC's Amateur Service database. The FCC says it has information that he no longer lives in Gulfport, MS and that a previous notice to

him was unclaimed in Mississippi.

Allen J. Stap, Sr. N8OKU (Bangor, MI) has had his General Class upgrade approved and his Amateur license renewed for a "short term" of two years. On May 9, 1997 he pleaded "no contest" to violation of a Michigan Statute which makes it a misdemeanor to "prevent, interfere, obstruct or impede a public safety radio communication."

Stap was "accused of intentionally interfering with a RACES station engaged in test operations in support of civil defense communications." He was ordered not to operate on the Amateur two-meter band and to surrender his radio equipment to the police.

In 1999, he was warned about interfering with Kalamazoo repeaters. Since that time, however, the FCC has received no complaints. The FCC said that it will designate his station license for revocation if there are any further valid complaints.

Alan B. Cole N6TUA (Lake Elsinore, CA) has been warned about his language used on the W6NUT repeater and the FCC's prohibition against obscene or indecent Amateur radio communications. "...for indecency purposes, the Commission treats Amateur transmissions the same as commercial broadcasts."

Utterances of "any obscene, indecent or profane language by means of radio communications" are prohibited by law and radio station licenses may be revoked for infractions.

"Obscene speech is not protected by the First Amendment and cannot be broadcast at any time. To be obscene, material must meet a three point test: (1) an average person, applying contemporary community standards, must find that the material, as a whole, appeals to the prurient interest; (2) the material must depict or describe, in a patently offensive way, sexual conduct specifically defined by applicable law; and (3) the material, taken as a whole, must lack serious literary, artistic, political or scientific value."

"The Commission defines indecency as language or material that, in context, depicts or describes, in terms patently offensive as measured by contemporary community standards, sexual or excretory activities or organs. The Supreme Court has repeatedly rejected arguments that this definition is unconstitutionally vague."

"Your operation ...is contrary to the basis and purpose of the Amateur Radio Service as set out in Section 97.1 of the Commission's rules," FCC said.

FCC SHUTS DOWN W6NUT AUTOMATIC OPERATION

The FCC's continuing investigation into the questionable operation of the W6NUT (Los Angeles 147.435 MHz) repeater has resulted in the station being ordered off the automatically-controlled airwaves. The "non-traditional" repeater – also known as the "Animal Farm" – is a haven for jammers, music players, broadcasters, foul language and a host of other violations. FCC enforcement official Riley Hollingsworth says he has gotten more complaints about this repeater than any other in the country.

The repeater is located on Saddle Peak in the Malibu hills of Southern California. The repeater's website at <www.435.org> explains that they are "...a Free Speech repeater meaning that no subject is left untouched. It has been said that this repeater is best used only if you brought a helmet," adding that "This is not a repeater that one would count on in case of emergency."

For some time, the FCC had been trying without success to identify the control operators who permit the illegal operation to continue. The repeater's trustee, Extra Class licensee Kathryn Tucker, AA6TK, of La Mirada, California, was cited several months ago for allowing the repeater to operate unsupervised. Several individual radioamateurs have also been charged with transmitting questionable or illegal content through the system. Hollingsworth said "...extensive monitoring of W6NUT shows no evidence whatsoever that a control operator was controlling the system."

Tucker was asked last February to provide the FCC with specific information about the W6NUT repeater such as coordination information, complaints received and action taken, identity of the control operators, station equipment used, repeater location ...and so forth.

On March 13, Kathryn Tucker responded by saying the control operator has "...always been Roy Tucker" N6TK ...same address as AA6TK and assumed to be her husband. She added that he was on duty "...24 hours a day, 7 days a week, 52 weeks out of the year." The letter was signed by both Roy and Kathryn Tucker.

Hollingsworth pointed out in a September 7th letter to her that she mentioned in her response that a control operator was not on duty during the incidents cited in his February letter and that she should "...explain this apparent discrepancy."

The FCC reminded her that Section 97.103(a) states that "The station licensee is responsible for the proper operation of the station in accordance with FCC rules" and that "When a control operator is a different amateur operator than the station licensee, both persons are equally responsible for proper operation of the station."

The FCC asked for "documentation from the station records of W6NUT" showing that Roy Tucker had been designated as the control operator of W6NUT.

Kathryn Tucker AA6TK was also asked to describe in detail the "...devices and procedures used for control of W6NUT so that compliance with the FCC rules is achieved." Hollingsworth did not accept Tucker's explanation that neither she nor the control operator was responsible for the retransmission of "inadvertent" violative communications as spelled out in Section 97.205(g.) He said "inadvertent" communications does not include repetitive violations or those that "...continue for hours or days."

"We find no merit to your implication that the responsibility of the owner/licensee/control operator of a repeater ends with the technical operation of the station's equipment," Hollingsworth said.

"To show that you understand the duties of a control operator, we need information demonstrating that W6NUT can comply with the FCC Rules without the control operator being present at a control point. In that you have stated that Roy Tucker is on duty '24 hours a day, 7 days a week, 52 weeks out of the year' you and/or Mr. Tucker are requested to conduct a time and usage study of W6NUT's operation for 14 consecutive 24 hour periods. The summary report of the study should show, for each hour-long period the station was capable of re-transmitting messages:

a. The date, time and length of transmissions on the repeater;

b. The station identification of the stations originating the transmissions;

c. A brief summary of the contents of the transmissions;

d. Notations as to any apparent violations of the Commission's rules; and

e. The times the control operator found it necessary to take an action to insure the immediate proper operation of the station, pursuant to Commission rules.

Time periods that W6NUT is not capable of re-transmitting messages, i.e., when it is turned off, should be so noted in the study." Tucker was asked to forward the time and usage report to Hollingsworth within 30 days (by Oct. 7th) with a copy to the Los Angeles Field Office in Cerritos.

On September 12th, another letter was sent from the FCC's Los Angeles Field Office notifying Kathryn Tucker that "effective upon receipt" until the "review by the Enforcement Bureau for apparent widespread violations...is resolved" per Section 97.109(d) "...you are hereby notified that Amateur station W6NUT may not be automatically controlled."

"If Amateur station W6NUT is operated under automatic control prior to notification from this office, enforcement action will be taken..." which could include station license revocation, operator license suspension and a fine. W6NUT may continue to transmit using local or remote control. *(Action by FCC, September 7 & 12, 2001.)*

TERRORIST ATTACK JAMS U.S. TELECOMMUNICATIONS

Major news Web sites were jammed as people went online to search for details of the World Trade Center and Pentagon terrorist attacks. But overall Internet traffic actually slowed as news seekers primarily relied on radio and televison for up-to-date information.

Much of New York City's phone system was overwhelmed by high demand or cut off completely when carrier facilities were knocked out. Phone companies pleaded with callers to avoid making calls so that emergency calls could get through. Pedestrians resorted to pay phones (which were made free by Verizon) when the cell phone networks became clogged. Cingular, Sprint and Verizon all reported damage to many of their cell sites. Financial trading was shut down alleviating some of the problem. The collapse of the World Trade Center damaged facilities that serve the New York Stock,Exchange.

AOL's local dial-up connections were jammed and many New York City surfers faced dial tones. Overall, however, the Internet held up pretty well. Packet loss (error percent) and response time was high but fortunately global traffic was low. The Web returned to normal by evening, Sept. 11th.

The FCC released the following news bulletin on September 12, 2001:

FCC EXPRESSES SYMPATHY AND PLEDGES CONTINUED SUPPORT FOR TELECOMMUNICATIONS INDUSTRY

Says Companies Are Working Tirelessly to Keep the Communications Network Fully Functioning and the Public Informed; Patience is Key

Washington, DC - The Federal Communications Commission (FCC) today expressed its deepest sympathy for everyone involved in yesterday's tragic events.

FCC Chairman Michael K. Powell said, "I am deeply saddened by the loss experienced yesterday by the people of New York and Washington, DC, rescue workers, federal employees, and all Americans affected by yesterday's tragedies.

"I am grateful for the tireless and heroic efforts of those in the telecommunications industry who are working hard to keep our most fundamental communications systems - such as telephone service, wireless phone service and television service - operating efficiently under the circumstances. This is a difficult time for everyone and we must be patient." *- FCC -*

COMMISSIONER GLORIA TRISTANI DEPARTS FCC

On September 7th, the number of FCC Commissioners was reduced to four. Gloria Tristani, a Democrat, announced on August 27th that she plans to step down early from the commission on Sept. 7, even though her term runs through 2003.

She issued a lengthy departure statement in which she stressed the high points of her four years in office. She said "...it has been a privilege to serve as a member of the FCC..." and that she had "...focused on three main goals...."

(1.) Ensuring that All Americans Have Access to the Benefits of the Information Age.

She specifically mentioned *Universal Service* (low-income support programs); the *E-Rate Program* (which has provided billions in subsidies to the nation's schools and libraries); the *Native American Initiative* (which seeks to bring the benefits of the Information Age to Indian tribes); *Improving Access for Americans with Disabilities* (they should not be left behind.) and *Expanding Access to Advanced Services* (broadband services can fundamentally change the way we live and learn.)

(2.) Protecting Consumers and Safeguarding Children

Consumer Protection – Slamming (unauthorized switching of a consumer's local or long distance carrier has been reduced significantly since new rules went into effect in November 2000); *Public Safety Communications* (additional spectrum is needed to carry forward the public safety mission.); *Wireless E-911* (cellular calls today provide limited or no information regarding the location of the caller); *V Chip* (parents today have the ability to block programming that they believe is inappropriate for their children); *Broadcast Indecency* (indecent material on the airwaves that reaches our children must be controlled); *Children's Television Requirement* (ensuring that television stations air educational programming for children.)

(3.) Promoting Diversity of Viewpoints

Low Power Radio (a new low power FM radio license that increases access to the airwaves by smaller community-oriented groups); *Media Ownership Limits* (help preserve a diversity of information sources and encourages localism); *Minorities in the Media* (The minority population in the United States continues to increase in percentage terms, yet broadcasters persist in under-representing them in prime time programming.)

Tristani said "The decisions the FCC will make on the issues raised above will have lasting impact on our lives and on our democracy."

The Washington rumor mills are churning overtime about whom President Bush will appoint to replace her. It will be Bush's fourth FCC appointee in his first year. Possible nominees being mentioned include Andy Levin, telecom aide to Rep. John Dingell (D., Mich.), telecom lobbyist David Krone, and Greg Rohde, former head of the *National Telecommunications and Information Administration* in the Clinton administration.

Because only three members of the five member commission can be from the same party, Bush has to appoint a Democrat to fill Tristani's slot.